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Telecine -

Combining scan lines, Interlaced scan lines

Weighting scan lines

CONVERTING ANAMORPHIC film images to video format

Frame store

DRAM

VRAM

Inventors

David Holland

Gavin Schutz

STAFF USE ONLY

Date completed: 2-18-94

Searcher: MAC

Terminal time: 50

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☐ APS

☐ Geninfo

☐ SDC

☐ DARC/Questel

☐ Other

b351,350,2,6,8,35,144,103,108,275

18feb94 09:03:01 User209195 Session D1029.1

\$0.32 0.009 Hrs File1

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SYSTEM:OS - DIALOG OneSearch

~~File 351:DERWENT WORLD PATENTS INDEX-LATEST~~

1981+;DW=9351,UA=9347,UM=9343

*File 351: Enhanced Plasdoc Codes (PS=) available (Derwent week 9332).

~~File 350:Derwent World Patents Index~~

1963-1980, EQUIVALENTS THRU DW=9348

~~File 2:INSPEC 1969-1994/Feb W2~~

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~~File 8: Ei Compendex*Plus (TM) 1970-1994/Mar W2~~

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~~File 35:Dissertation Abstracts Online 1861-1994/Apr~~

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~~File 144:Pascal 1973-1993/Dec~~

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*File 144: Effective 2/1/94, display formats 11, 14, 21, 24, 31,
and 34 have been eliminated; see HELP NEWS 144 for more details.

~~File 103:Energy Science & Technology 1974-1994/Jan B2~~

*File 103: For access restrictions, see HELP RESTRICT

~~File 108:Aerospace Database 1962-1993/Dec B2~~

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*File 108: Beginning with the first 1994 update to File 108 (UD=9401B1),
STAR records will no longer be added. See HELP NEWS 108 for more details.

~~File 275:Computer Database(TM) 1983-1994/Feb W2~~

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Set Items Description

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?ds

Set	Items	Description
S1	817	TELECINE? ?
S2	487918	SCAN?
S3	1074018	COMBIN? OR INTERLAC? OR INTER(W) (LACE? OR LACING)
S4	4408	S2(3N)S3
S5	551031	WEIGHT?
S6	504	S2(3N)S5
S7	23	S1 AND S4
S8	0	S1 AND S6
S9	17	ANAMORPH?(1N)FILM?
S10	998819	FILM?
S11	1339	ANAMORPH?
S12	72	S10(S)S11
S13	200136	VIDEO?
S14	13	S12 AND S13
S15	36	S7 OR S14
S16	31	RD (unique items)

?

?t 16/7/1-31

16/7/1 (Item 1 from file: 351)
009631794 WPI Acc No: 93-325343/41
XRPX Acc No: N93-251253

Telecine equipment - has interpolation circuit for converting input
film image video signal to interlaced-scanning signal NoAbstract

Patent Assignee: (MATU) MATSUSHITA ELEC IND CO LTD

Number of Patents: 001

Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
JP 5236457	A	930910	9341	(Basic)

Priority Data (CC No Date): JP 9233103 (920220)

Abstract (Basic): JP 05236457 A

Dwg.1/4

Derwent Class: W04;

Int Pat Class: H04N-005/93; H04N-007/137

16/7/2 (Item 2 from file: 351)
009282026 WPI Acc No: 92-409437/50
Related WPI Accession(s): 90-047022

XRPX Acc No: N92-312302

Intermittent motion flying spot telecine operating in real time - has
film scanned with sequential scanning raster before
sequential-to-interlace conversion and picture storage

Patent Assignee: (RANK) RANK CINTEL LTD

Author (Inventor): MEAD T W

Number of Patents: 004

Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
GB 2256559	A	921209	9250	(Basic)
GB 2221817	A	900214	9007	
GB 2256559	B	930317	9311	
GB 2256559	B	930317	9311	

Priority Data (CC No Date): GB 8819191 (880812)

Applications (CC,No,Date): GB 8918268 (890810); GB 9216368 (920731); GB
8918268 (890810); GB 8918268 (890810); GB 9216368 (890810); GB 8918268
(890810); GB 9216368 (890810)

Abstract (Basic): GB 2256559 A

A sequential-to-interlace converter is coupled to the output of a
light detector. The scanner operates with a sequential scanning raster.
The scanner scans with a triangular or boustrophedral scan and at an
~~instantaneous line rate increased relative to conventional line rates,~~

Video processing circuitry coupled to the output of a light
detector reverses the samples of alternate lines of the signal and
decreases the line rate to provide a conventional video output signal.

ADVANTAGE - Provides adequate film pull down time to allow
use of pin-registration.

Dwg.1/3

Abstract (GB): 9311 GB 2256559 B

An intermittent motion flying spot telecine capable of operating
in real time and including a cathode ray tube having scanning means for
producing a flying spot to scan a cinematographic film, an optical
system for imaging the spot in the film plane, light detector means for
receiving the light passed by the film and producing an electrical
signal responsive thereto, and an intermittent film motion system for

pulling the cinematographic film through the film plane, ~~including a sequential to interlace converter~~ coupled to the output of the light detector means, and in which the scanning means operates with a sequential scanning raster.

Dwg.1/1

Derwent Class: P81; S06; W04;

Int Pat Class: H04N-003/40

16/7/3 (Item 3 from file: 351)

008808932 WPI Acc No: 91-312945/43

Related WPI Accession(s): 91-356504

XRPX Acc No: N91-239860

High definition telecine scanning method - performing number of subscans equalling pixel number in each block on image area

Patent Assignee: (RANK) RANK CINTEL LTD

Author (Inventor): OSBOURNE T M; STANSFIELD P W

Number of Patents: 001

Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
GB 2243264	A	911023	9143	(Basic)

Priority Data (CC No Date): GB 907249 (900330); GB 916015 (910321); GB 91106015 (910321)

Abstract (Basic): GB 2243264 A

Photographic film is scanned to obtain a high definition video signal. The image area to be scanned is divided into blocks, each comprising n pixels. The image area is scanned with a Cathode Ray Tube (CRT) raster to acquire image data from a pixel of each block. The scan is adjusted and the image rescanned. The adjustment is such that upon rescanning, image data is acquired from an unscanned pixel of each block. The adjustment is repeated and rescanning occurs until the image area has been scanned n times. The image data acquired from each scan is combined to form a composite high definition video signal.

Each block extends over at least two scanning lines and the pixel of each block scanned during the second and subsequent scans is on a different scanning line from the pixel scanned by the previous scan.

ADVANTAGE - Continuous high definition playback. @ (9pp

Dwg.No.3/6)@

Derwent Class: S06; W02; W04;

Int Pat Class: H04N-003/36; H04N-007/12

16/7/4 (Item 4 from file: 351)

008160021 WPI Acc No: 90-047022/07

Related WPI Accession(s): 92-409437

Intermittent motion flying spot telecine - includes digital scan corrector, picture store and sequential-to-interlace converter

Patent Assignee: (RANK) RANK CINTEL LTD

Author (Inventor): MEAD T W

Number of Patents: 011

Number of Countries: 015

Patent Family:

CC Number	Kind	Date	Week	
GB 2221817	A	900214	9007	(Basic)
WO 9001854	A	900222	9011	
ZA 8906147	A	900425	9022	
AU 8941987	A	900305	9023	
EP 428614	A	910529	9122	
JP 4500146	W	920109	9208	
GB 2256559	A	921209	9250	

US 5170254	A	921208	9252
GB 2256559	B	930317	9311
GB 2256559	B	930317	9311
GB 2221817	B	930324	9312

Priority Data (CC No Date): GB 8819191 (880812); GB 8918268 (890810)

Applications (CC,No,Date): GB 8918268 (890810); WO 89GB918 (890810); EP 89909838 (890810); JP 89509459 (890810); GB 8918268 (890810); GB 9216368 (920731); WO 89GB918 (890810); US 655383 (910211); GB 8918268 (890810); GB 9216368 (890810); GB 8918268 (890810); GB 9216368 (890810)

Language: English

EP and/or WO Cited Patents: 1.Jnl.Ref; EP 10433; GB 2137844; US 3814850

Designated States

(National): AU; JP; US

(Regional): AT; BE; CH; DE; FR; GB; IT; LU; NL; SE; LI

Filing Details: US5170254 Based on WO 9001854

Abstract (Basic): GB 2221817 A

An intermittent motion flying spot telecine capable of operating in real time provides an adequate film pull down time to allow the use of pin-registration by including a digital scan corrector (18) and a picture store and sequential-to-interlace converter (19) and by adjusting the CRT scanning circuitry (24).

Three measures are employed: the film is scanned with a sequential scanning raster and a subsequent sequential-to-interlace conversion is performed so as to combine two field blanking intervals into one longer one; data are written into the picture store at a faster rate than required for the output and read out at conventional rate, and a triangular or boustrophedral line scanning waveform is employed to allow line flyback time to be removed and the instantaneous line rate increased. Dwg.1/3

Abstract (US): 9252 US 5170254 A

The intermittent motion flying spot telecine an adequate film pull down time to allow the use of pin-registration by including a digital scan corrector (18) and a picture store and sequential-to-interlace converter (19) and by adjusting the CRT scanning circuitry (24).

~~The film is scanned with a sequential scanning raster and subsequent sequential-to-interlace conversion is performed,~~ so as to combine two field blanking intervals into one longer one. Data is written into the picture store at a faster rate than required for the output and read out at a conventional rate. A triangular line scanning waveform is employed to allow line flyback time to be removed and the instantaneous line rate increased.

ADVANTAGE - Capable of operating in real time.

Dwg.1/3

Abstract (GB): 9312 GB 2221817 B

An intermittent-motion flying spot telecine capable of operating in real time and including a cathode ray tube having scanning means for producing a flying spot to scan a cinematographic film, an optical system for imaging the spot onto the film to scan film frames of the film, an intermittent film motion system for pulling the film through the film plane during times between scans of film frames, light detector means for receiving the light passed by the film and producing an electrical signal response thereto at an output, and means comprising a digital picture stored coupled to the output video signal at a video rate, in which the scanning means operates and the signal from the light detector means is written into the picture store at a rate which is increased relative to the video rate.

Dwg.1 9311 GB 2256559 B

An intermittent motion flying spot telecine capable of operating in real time and including a cathode ray tube having scanning means for producing a flying spot to scan a cinematographic film, an optical

system for imaging the spot in the film plane, light detector means for receiving the light passed by the film and producing an electrical signal responsive thereto, and an intermittent film motion system for pulling the cinematographic film through the film plane, including a sequential to interlace converter coupled to the output of the light detector means, and in which the scanning means operates with a sequential scanning raster.

Dwg.1/1

Derwent Class: P81; S06; W04;

Int Pat Class: H04N-003/36; H04N-003/40; H04N-005/25; H04N-005/253;
H04N-009/11

16/7/5 (Item 5 from file: 351)

007908667 WPI Acc No: 89-173779/24

XRPX Acc No: N89-132651

Exposing video film onto photographic line film - recording half image on film with double line number or height

Patent Assignee: (STRO/) STROHWALD H

Author (Inventor): HIRSCHEL K; SALZMANN H; STROHWALD H

Number of Patents: 001

Patent Family:

CC Number	Kind	Date	Week
DE 3740574	A	890608	8924 (Basic)

Priority Data (CC No Date): DE 3740574 (871130)

Abstract (Basic): DE 3740574

Only each second half image of the video film is recorded onto the photosensitive cine film, with doubled line number or doubles line height. Each second half of the video film may be reproduced onto a picture screen and the reproduced image anamorphically equalised. A device for reproduction of each second half image may display it on a screen (13).

A photographic camera (14) may record the images and between the camera and the screen an anamorphic optical system is used.

Alternatively, the normal height half images may be recorded using a line doubling optical system.

USE/ADVANTAGE - Making film suitable for large cinema screen projection in real time. Satisfactory results without complicated equipment. @(4pp Dwg.No.1/4)@

Derwent Class: S06; W04; P82; R57;

Int Pat Class: G03B-015/00; G03B-027/32; H04N-005/87

16/7/6 (Item 6 from file: 351)

007617880 WPI Acc No: 88-251812/36

XRPX Acc No: N88-191533

Optical signal to electronic video signal converting method - having CRT scanner output monitored by photoelectric device outputting signal when blemish is detected on screen

Patent Assignee: (RANK) RANK CINTEL LTD; (RANK-) RANK CINTEL LTD

Author (Inventor): MUMFORD R W J

Number of Patents: 005

Patent Family:

CC Number	Kind	Date	Week
EP 281229	A	880907	8836 (Basic)
GB 2203611	A	881019	8842
JP 63233678	A	880929	8845
GB 2203611	B	910102	9101
US 5014133	A	910507	9121

Priority Data (CC No Date): GB 875336 (870306)

Applications (CC,No,Date): EP 88300494 (880121); JP 8851405 (880304); US 428115 (891027)

Language: English

EP and/or WO Cited Patents: A3...9013; US 4227207; 1.Jnl.REF

Designated States

(Regional): AT; BE; CH; DE; ES; FR; GR; IT; LI; LU; NL; SE

Filing Details: US5014133 (+ 17.2.88 - US - 157327) (1809MP)

Abstract (Basic): EP 281229

The optical signal converting method uses cathode ray tube (CRT) scanner (42) with each image scanned in a number of scanning operations with each scanning operation using a different area (32,34) of the screen of the CRT scanner and the signals resulting from the scanning operations are combined to provide the electronic video signal. Light from the CRT scanner is passed through deflector (48) operable to deflect light from respective ones of the different areas (32,34) of the screen along the same path into an objective lens so that the same area of a film gate positioned in the optical path beyond the objective lens is scanned in each scanning operation.

The output of the CRT scanner (42) is monitored by means of a photoelectric device operable to provide an output signal when a blemish is detected on the screen of the CRT scanner. The output signal is applied to an analogue-to-digital converter used to process the electronic video signal to cause the video signal level immediately prior to detection of the blemish to be maintained while the blemish persists.

USE/ADVANTAGE - Telecine equipment. Improved concealment of blemishes. @(9pp Dwg.No.6/9)@

Abstract (US): 9121 US 5014133

The method of converting an optical signal into an electronic video signal using a cathode ray tube scanner involves scanning each image in a number of scanning operations with each scanning operation using a different area of the screen. The signals resulting from the scanning operations are combined to provide the electronic video signal. Light from the CRT scanner is passed through a deflection appts. which deflects light from respective different areas of a film gate positioned in the optical path beyond the objective lens is scanned in each scanning operation.

The output of the CRT scanner is monitored using a photoelectric device operable to provide an output signal when a blemish is detected on the screen. The output signal is applied to an analog-to-digital converter used to process the electronic video signal to cause the video signal level immediately prior to detection of the blemish to be maintained while the blemish persists.

ADVANTAGE - Improved blemish concealment. @(8pp)@

Abstract (GB): 9101 GB 2203611

A method of converting an optical signal into an electric video signal, in which the image is scanned by means of cathode ray tube ('CRT') scanning means, each image being scanned in a plurality of scanning operations with each scanning operation using a different area of the screen of the CRT scanning means; and the signals resulting from the plurality of scanning operations being combined to provide the electronic video signal.

Derwent Class: W04; R57;

Int Pat Class: H04N-003/36; H04N-005/21; H04N-009/04

16/7/7 (Item 7 from file: 351)

007339968 WPI Acc No: 87-336974/48

XRPX Acc No: N87-252328

TV film scanner with semiconductor line sensors - derives green colour signal from two line sensors scanning film on two adjacent lines of TV frame; TELECINE

Patent Assignee: (BTSB-) BTS BROADCAST TELEVISION SYSTEMS; (BOSC) BOSCH

GMBH ROBERT

Author (Inventor): POETSCH D

Number of Patents: 005

Number of Countries: 003

Patent Family:

CC Number	Kind	Date	Week	
GB 2191061	A	871202	8748	(Basic)
DE 3617837	A	871203	8749	
JP 62287788	A	871214	8804	
GB 2191061	B	900502	9018	
DE 3617837	C2	930909	9336	

Priority Data (CC No Date): DE 3617837 (860527)

Applications (CC,No,Date): GB 8712335 (870526); DE 3617837 (860527); JP 87124106 (870522)

Abstract (Basic): GB 2191061

The first green line sensor (G1) is arranged to scan the film on line 1 and the second green line sensor (G2) on line 2 of the raster frame. The line sensors for red (R) and blue (B) are arranged to scan the film on a line between those scanned by the two green line sensors. Thus, by suitable control of the two green line sensors the green signals of each line and its following interlaced line can be simultaneously scanned, which permits a doubling of the number of lines without increasing the picture element rate of the line sensor used.

However, the red and blue video colour signals are only provided for a single line. The lines for the two interlaced fields corresponding to a frame must be produced electronically, e.g. by vertical filtering. It is possible to have two red and blue line sensors having the same optical positions relative to the television raster frame as the two green line sensors.

USE/ADVANTAGE - Colour TV picture signal derivation from motion picture film; Produces high resolution TV pictures with only slight increase in picture element rate. @ (5pp Dwg.No.4/4)@

Abstract (GB): 9018 GB 2191061

A television film scanner in which red, blue and green primary colour signals are derived by the line-by-line sequential scanning of a continuously moving film by a plurality of semiconductor line sensors each responsive to a single one only of the primary colours, wherein the green colour signal is derived from two line sensors responsive to green which are arranged to scan the film simultaneously on two adjacent lines of the television frame.

Abstract (DE): 9336 DE 3617837 C

The television film scanner provides colour television signals corresponding to a scanned cine film, using semiconductor line sensors for red, blue and green. The green component of the image is detected by 2 geometrically positioned line sensors (14,14'), aligned with 2 adjacent television lines of a full-frame image.

The 2 green component line sensors (14,14') may be offset by half the width of an image element in the horizontal direction. The line sensors (13,15) for the red and blue components may line between the green component line sensors (14,14').

ADVANTAGE - Provides colour television signals compatible with high resolution television system.

Dwg.4/4

Derwent Class: W04; R57;

Int Pat Class: H04N-003/38; H04N-009/11

16/7/8 (Item 8 from file: 351)

007223778 WPI Acc No: 87-220786/31

XRPX Acc No: N87-165759

Wide angle image production method - positioning lens before TV screen to generate image, and magnifying along single horizontal axis; ASPECT RATIO

Patent Assignee: (BALO/) BALOGH T K

Author (Inventor): BALOGH T K

Number of Patents: 001

Patent Family:

CC Number	Kind	Date	Week
US 4681405	A	870721	8731 (Basic)

Priority Data (CC No Date): US 656588 (841001)

Abstract (Basic): US 4681405

The image production method includes the step of producing a width-compressed record of a field of visual features, displaying the width-compressed video record on a screen, and viewing through a single axis anamorphic viewing lens according to produce a width-expanded image of the television screen displayed record. The width-compressed video record is produced in several ways including filming a scene through an anamorphic lens system; recording the scene through a second reverse geometric version of the anamorphic lens or by electronic processing of the video signal data.

The anamorphic record may be projected through a single axis anamorphic lens for direct viewing of a width-expanded image. The single axis anamorphic lens comprises an eschelon lens formed by a sheet of optically transparent material having a series of parallel. Vertical sawtooth grooves are formed into one face, which increase nonlinearly in angularity from the centre of the lens to the outer lateral edges.

ADVANTAGE - Allows large viewing angles without distortion and deterioration of image brightness. @(10pp Dwg.No.2/10)@

Derwent Class: W02; W03; W04; P81;

Int Pat Class: G02B-003/08; G02B-013/08; G02B-021/60

16/7/9 (Item 9 from file: 351)

004443867 WPI Acc No: 85-270745/44

XRPX Acc No: N85-202112

Telecine lens for wide screen film has anamorphotic elements independently adjustable with projection lens along optical axis

Patent Assignee: (LUTZ/) LUTZ E

Author (Inventor): LUTZ E

Number of Patents: 001

Patent Family:

CC Number	Kind	Date	Week
DE 3414270	A	851024	8544 (Basic)

Priority Data (CC No Date): DE 3414270 (840414)

Abstract (Basic): DE 3414270

The two elements (12,14) of the anamorphotic lens and the projection objective (10) are adjustable along the optic axis. The elements are independently movable and can be rotated relative to each other.

The wide screen film format is projected onto a small screen at a short spacing. It is then transferred to video by a simple video camera.

ADVANTAGE - Simple telecine to video conversion for amateur use. @(11pp Dwg.No.1/1)@

Derwent Class: P82;

Int Pat Class: G03B-037/06

16/7/10 (Item 10 from file: 351)

004416521 WPI Acc No: 85-243399/40

XRPX Acc No: N85-182139

Prod'n. and projection of 35 mm cine film involves selected lateral compression for different projection systems

Patent Assignee: (ISCO-) ISCO-OPTIC GMBH; (ISCO-) ISCO-OPTIC GMBH

Author (Inventor): LINDSTEDT K; BERGGREN G M

Number of Patents: 003

Patent Family:

CC Number	Kind	Date	Week	
DE 3410398	A	850926	8540	(Basic)
EP 156313	A	851002	8540	
DE 3410398	C	870806	8731	

Priority Data (CC No Date): DE 3410398 (840321)

Applications (CC,No,Date): EP 85103320 (850321)

Language: German

EP and/or WO Cited Patents: A3...8547; US 3143033; FR 2258648; DE 1931828; EP 3631; DE 1070025

Designated States

(Regional): CH; DE; FR; GB; IT; LI

Abstract (Basic): DE 3410398

The cine film is exposed with an anamorphic compression factor of about 1.5. It is reproduced in various types of equipment and projectors with different aspect ratios.

The film can be reproduced on video/TV with an aspect ratio of 1.375 or on wide screen projection with ratios up to and over 2. The main detail in the film is kept inside the common area for the different reproduction systems.

ADVANTAGE - Uses all available area of 35 mm frame, maximum information store. @(11pp Dwg.No.0/0)@

Abstract (DE): 8731 DE 3410398

The 35 mm film process for panoramic scenes has an anamorphic compression to reduce the wide scene into the available space on the 35 mm film. The projection uses a similar optical system to restore the effect.

No additional apertures or masks are used and the whole film area is utilised. The frame width and height ratio is 1.333 or similar ratio. Other ratios are also possible. For video reproduction the restored frame is masked.

ADVANTAGE - Full film area utilised, max. quality. @(5pp)@

Derwent Class: P82;

Int Pat Class: G03B-037/06; G03B-041/00

16/7/11 (Item 11 from file: 351)

004145172 WPI Acc No: 84-290712/47

XRPX Acc No: N84-216818

TV scanning process for cine films having line clock and horizontal clock frequencies changed for reading into digital main store for frame compression or expansion; TELECINE

Patent Assignee: (BOSC) BOSCH R GMBH

Author (Inventor): POETSCH D; MABMANN V; HEITMANN J

Number of Patents: 004

Patent Family:

CC Number	Kind	Date	Week	
GB 2140243	A	841121	8447	(Basic)
DE 3318658	A	841122	8448	
GB 2140243	B	861105	8643	
DE 3318658	C	910523	9121	

Priority Data (CC No Date): DE 3318658 (830521)

Applications (CC,No,Date): GB 8411245 (840502)

Abstract (Basic): GB 2140243

Frames of a continuously moving film are imaged onto a line or area sensors. The film is scanned line by line without the interlacing

and is converted by an image store into a standard television signal with line interlacing. For expansion or compression of the scanned film frames both in a horizontal and in a vertical direction (so-called zoom effect), and if appropriate for a shift of the frame centre during the television reproduction of the film on the screen, the clock and/or horizontal frequencies for activating the store are varied selectively during entering and during readout.

The expansion in a vertical direction of the signal generated by the sensors is carried out by increasing the horizontal frequency during the read-out from the sensors and during entering in the store. The expansion of the video signal in a horizontal direction is carried out by different clock frequencies of the image store during entering and read out.

ADVANTAGE - The zoom reproduction of film frames takes place free of inertia. @(7pp Dwg.No.0/2)@

Abstract (GB): 8645 GB 2140243

Process for the television scanning of films by means of line or area sensors onto which the frames of the continuously moving film are imaged, the film being scanned line by line without interlacing and being converted by means of an image store into a standard television video signal with line interlacing, wherein both the pixel clock and horizontal line frequencies for activating storage means are varied selectively during entering and during read-out for expansion or compression of the scanned film frames both in a horizontal and in a vertical direction wherein (a) for expansion in a vertical direction of the video signal, the horizontal frequency is increased during the read-out from the sensors and during entering in the image store wherein (b) for expansion of the video signal in a horizontal direction different clock frequencies of the image store are employed during entering and read-out, the read-out clock frequency being reduced by the amount of a horizontal expansion factor (KH) in relation to the entering clock frequency, wherein (c) for compression in a vertical direction of the video signal the horizontal frequency is lowered during the read-out from the sensors and during entering in the image source, and wherein (d) for compression of the video signal in a horizontal direction different clock frequencies of the image store are employed during entering and read-out, the read-out clock frequency being increased by the amount of a horizontal expansion factor (KH) in relation to the entering clock frequency.

Abstract (DE): 9121 DE 3318658

The method makes use of line or surface sensors (1), on which the pictures of the continuously moving film are formed. The film is scanned line by line without jumping a line and is converted into a television signal conforming to standards with interlacing using a picture memory (4). For the purpose of expanding or compressing the scanned film pictures horizontally and vertically (in zooming) and shifting the centre of the picture in a television playback, the beat and the high frequency are selectively varied for controlling the memory.

The expansion of the video signals from the sensors is achieved in a vertical direction by increasing the high frequency in reading from the sensors and in writing in the memory and in a horizontal direction by using different frequencies for writing in and reading out.

ADVANTAGE - Electronic equipment is employed throughout. @(6pp)@

Derwent Class: W04; R57;

Int Pat Class: H04N-003/36; H04N-009/11; H04N-005/22

XRPX Acc No: N84-055587

Television cine-projection appts. has frame synchronising pulse delay circuit to lag reading of target potential relief and eliminate flicker ; TELECINE

Patent Assignee: (MOCO=) MOSC COMMUN ENG INS

Number of Patents: 001

Patent Family:

CC Number	Kind	Date	Week
SU 1021020	A	830530	8412 (Basic)

Priority Data (CC No Date): SU 3386985 (820122)

Abstract (Basic): SU 1021020

Appts. contg. a projection CRT in series with a film transport, optical system and photoreceiver at the input to a recorder, and a synch is redesigned in order to reduce requirements on cine-film transport (drive) stability. It can be used for converting the image of positive or negative cine-film into a T.V. video signal.

The photoreceiver is a camera tube (4) and a line frequency doubler (6), beam extinction unit (8), frame frequency divider (9) and frame synch pulse delay circuit (10) are introduced. Transport is continuous, but with opposing movement of the film and a translucent raster, so shrinking the camera tube target raster vertically. Anamorphic optics can preserve geometric similarity. The permissible deviation in relative speed is 5-7%. Bul.20/30.5.83. @(3pp Dwg.No.1/1)@

Derwent Class: W04; R57;

Int Pat Class: H04N-003/36

16/7/13 (Item 13 from file: 351)

003382401 WPI Acc No: 82-P0437E/43

TV scanning system for films in cinemascope uses picture store to hold film frame which is read out at reduced pulse frequency to compensate for horizontal compression of frame; WIDE SCREEN

Patent Assignee: (BOSC) BOSCH R GMBH

Author (Inventor): POETSCH D; BECKER W; WAGNER H; MASSMANN V

Number of Patents: 012

Patent Family:

CC Number	Kind	Date	Week
GB 2097220	A	821027	8243 (Basic)
DE 3115367	A	821104	8245
DE 3142865	A	830511	8320
DE 3153011	A	830818	8334
DE 3121308	A	831006	8341
DE 3115367	C	831201	8349
US 4476493	A	841009	8443
US 4513324	A	850423	8519
GB 2097220	B	850515	8520
DE 3153011	C	870212	8706
DE 3121308	C	890223	8908
DE 3142865	C	900816	9033

Priority Data (CC No Date): DE 3142865 (811029); DE 3115367 (810416); DE 3121308 (810529)

Applications (CC,No,Date): US 366935 (820409); US 434054 (821013); GB 829883 (820402); DE 3153011 (810416)

Filing Details: DE3153011 Add in 3142865 Div ex 3115367 (590BD); DE3121308 Add to 3115367 (1167GT)

Abstract (Basic): In a method for the television scanning of films of the Cinemascope format in which the film is recorded compressed in the horizontal direction of a factor of 2, the video signal is expanded by an appropriate pulsing of a storage device and the beginning and end of the reading out operation may be displaced selectively in order to prevent margins without picture content on the viewing screen.

In one embodiment, the complete Cinemascope film frame is introduced into a picture store and is read out once again at a reduced pulse frequency after displacement of the beginning of the read out.
(16pp)

Abstract (US): 8519 US 4513324

Film frames are scanned in full width and a horizontal section of the frame is defined in an intermediate store by a read-out start address and expanded by reading out at a lower speed. Only a part of the desired expansion is produced before the picture is stored for interlaced read-out in pairs of television fields. The rest of the desired expansion is then produced, with a further selection of the portion of each line to be viewed.

Varying the read-out start address to shift the section of the picture to be reproduced in television form is done frame by frame in the first store and field by field in the second store. The two shift adjustments can be programmed in combination for smooth transitions.

ADVANTAGE - Allows continuous shifting of film frame without flickering. @(6pp)@ 8443 US 4476493

Video signals derived from the output of a device are expanded to an extent compensating for the optical horizontal compression of the pictures on the film. A portion of the time-expanded signals corresp. to each television line is selected for television by providing a controllable offset in the beginning of read-out of video signals of the line transmission and cutting off read-out of the signals of the line after a predetermined interval after the beginning. The controllable offset is constant for each picture frame. Pref. the step of selection by controllable offset is performed manually or at least in part by use of previously prepared programming appts. @(16pp)@

Abstract (GB): 8520 GB 2097220

A method for the television scanning of films in which the frames are recorded compressed in the horizontal direction by the factor of 2, with the aid of line or area sensors on which the entire width of the film frame is formed, the film being scanned line by line and converted with the aid of storage means into a standard television signal characterised in that, in order to prevent strips devoid of picture information at the upper and lower edges of the viewing screen during the television reproduction of the film, the video signal is expanded by an appropriate pulsing of the storage means which accepts at least one television frame and in order to capture essential performance of the films the beginning of the read-out operation is displaced selectively, and the end of the read-out operation is correspondingly displaced in accordance with the television standard.

Abstract (DE): 9033 DE 3142865

The method described is intended for films anamorphically distorted, in particular the so-called "CinemaScope" format, in which the pictures, compressed in a horizontal direction by a factor 2, are recorded on film with the aid of line or surface sensors and these form an "image" of the complete width of the picture.

The film is scanned line by line without jumping a line and, by means of a memory with a timing suited to the 'CinemaScope' format, converted into the usual T.V. signal. Also, during the reproduction on T.V. the picture is expanded to avoid lines at the top and the bottom of the image.

USE/ADVANTAGE - TV and video industry. High efficiency. @(5pp)@ 8908 DE 3121308

The television display system for 'cinemascope' films has the full width of each film frame imaged onto a sensor array coupled to a store allowing the image signals to be converted into a normal television format. The video signals provided by the sensors are digitalised

before feeding them to an image store (65) suitable for the full cinemascope film image.

The image store (65) is subsequently read-out using a clock frequency which is reduced in dependence on the expansion factor for the film images, after shifting the read-out beginning.

ADVANTAGE - Eliminates need for additional line stores. @(3pp)@
8706 DE 3153011

Cine films are scanned to be suitable for t.v. transmission. Electronic expansion is carried out to correct anamorphic distorted films meant for cinemascope. The video signals, through sensors (1), are appropriately expanded. The synchronisation with the corresp. t.v. standard is automatic. This is in addition to the end of the reading process in the horizontal direction.

A video processor (2) can be used with the output of an a-d converter (3) connected to an image store (4).

ADVANTAGE - Shift of picture section follows without inertia or use of mechanical expensive construction. @(4pp)@

Derwent Class: W04; R57;

Int Pat Class: H04N-003/36

16/7/14 (Item 14 from file: 351)

003008355 WPI Acc No: 81-A8361D/05

Film scanning system for TV display has prom stores for selected film format to read-out output from transducer of film scanned line-by-line without interlacing; TELECINE

Patent Assignee: (BOSC) BOSCH R GMBH

Author (Inventor): POETSCH D

Number of Patents: 006

Patent Family:

CC Number	Kind	Date	Week	
GB 2052915	A	810128	8105	(Basic)
DE 3012257	A	811008	8142	
DE 3012327	A	811008	8142	
✓ US 4346408	A	820824	8236	
GB 2052915	B	830914	8337	
DE 3012257	C	880317	8811	

Priority Data (CC No Date): DE 3012327 (800329); DE 2921934 (790530); DE 3012257 (800329)

Filing Details: DE3012257 2921934 (1230BD)

Abstract (Basic): The system for the television scanning of films comprises a frame store into which respective signals belonging to a scanned line are read at an address characterising the position of the line within the film frame and from which are read out once again in accordance with the television standard. In so doing, the respective address is formed either by counting pulses derived from the line and frame frequency of the television standard (coupled operation) or by counting pulses derived from the film speed (uncoupled operation).

To prevent cut edges with studio asynchronous film speeds below 50 frames per second, during the reading in of one film frame into one half frame store, the other half frame store is simultaneously completely and frequently read out until the reading in of the one film frame has finished.

Abstract (DE): 8811 DE 3012257

A 35 mm film is scanned and digital values entered into a memory which can be read according to the requirements of a t.v. standard. The memory (16) is structured in 6 regions (61') and (62') in which one group for one half frame region and the other a second half frame regions.

The regions of the memory are accessed by switches (63', 64') that are controlled by read address and write address circuits. Main

switches (43,44) alternate to between half frames.

ADVANTAGE - Digital memory stores film image and avoids edge distortion. @ (4pp) @

Derwent Class: W04; R57;

Int Pat Class: H04N-003/36

16/7/15 (Item 1 from file: 350)

002381041 WPI Acc No: 80-J7509C/40

Anamorphic converter circuit for TV signals - has stages to modify video signal from cine film so that displayed image along one axis has dimensions changed W.R.T perpendicular axis; TELECINE

Patent Assignee: (BELM/) BELMARES-SARABIA A

Author (Inventor): BELMARESSA A; CHAYKA S J

Number of Patents: 003

Patent Family:

CC Number	Kind	Date	Week	
US 4223343	A	800916	8040	(Basic)
DE 3029425	A	820401	8214	
DE 3029425	C	870212	8706	

Priority Data (CC No Date): US 850459 (771110); DE 3029425 (800802)

Abstract (Basic): The beam index colour cathode ray tube has index stripes spaced apart across a run-in area of the screen which have a pitch equal to the pitch of index stripes in an image area. A predetermined number of the index stripes in the run-in area are counted as an electron beam scans them to preset colour control circuits to a predetermined condition as the commencement of scanning of the image area.

A characteristic of the signal resulting from scanning of the index stripes may be used to begin the counting of the signal from a specific one of the index stripes in the run-in area other than the first one encountered by the electron beam. A broad index stripe is optionally provided at the outer perimeter of the run-in area. The broad index stripe raises the average signal level in that region to a high enough level to avoid triggering by noise.

Derwent Class: W04; R57;

Int Pat Class: H04N-003/36; H04N-009/11

16/7/16 (Item 2 from file: 350)

001932744 WPI Acc No: 78-G2005A/32

Telecine flying spot scanner - has beam splitting prism to produce two optical images for interlaced scanning (NL 2.8.78)

Patent Assignee: (CSFC) THOMSON-CSF

Author (Inventor): FAVREAU M

Number of Patents: 002

Patent Family:

CC Number	Kind	Date	Week	
DE 2804134	A	780803	7832	(Basic)
NL 7801050	A	780802	7833	

Priority Data (CC No Date): FR 772599 (770131)

Abstract (Basic): The flying spot scanner for telecine applications has an optical system for producing two images of the film. A film moves (9) in the direction indicated by the arrow (10). Further arrows (7, 8) indicate the direction and amplitude of scanning of the film in adjacent frames.

A shutter (5) moves in the direction of the arrow (15) in synchronism with the flying spot. An objective (6) forms an image of the film which is directed on to the pickup screen (1) by an arrangement of three prisms (2-4). A half-silvered mirror (13) splits the beam into two.

Derwent Class: W02; W03; W04; P81; R57; R21

Int Pat Class: G02B-027/10; H04N-003/36

16/7/17 (Item 3 from file: 350)

001048021 WPI Acc No: 74-E4116V/25

Optical system for continuous run telecine - uses single scanning together with rotating reflecting/transmitting sectorised disc to achieve interlacing

Patent Assignee: (CSFC) THOMSON-CSF

Number of Patents: 003

Patent Family:

CC Number	Kind	Date	Week	
US 3816655	A	740611	7425	(Basic)
CH 556624	A	741129	7452	
GB 1384938	A	750226	7509	

Priority Data (CC No Date): FR 7139038 (711029)

Derwent Class: W02; W03; W04; P81; R21; R57;

Int Pat Class: G02B-017/00; G02B-027/10; H04N-003/36; H04N-005/84

16/7/18 (Item 4 from file: 350)

001026051 WPI Acc No: 74-C2058V/18

System for scan interlace in telecine - uses two detectors generating frame scan trigger signals from reference marks continuously moving film

Patent Assignee: (CSFC) THOMSON-CSF

Number of Patents: 002

Patent Family:

CC Number	Kind	Date	Week	
US 3806645	A	740423	7418	(Basic)
GB 1389118	A	750403	7514	

Priority Data (CC No Date): FR 7137165 (711015)

Derwent Class: W02; W03; W04; R57;

Int Pat Class: H04N-005/30

16/7/19 (Item 1 from file: 2)

04310698 INSPEC Abstract Number: B9302-6430C-038

Title: HDTV production-the technical dilemma within the progressive versus interlace debate

Author(s): Thorpe, L.J.

Author Affiliation: Bus. & Professional Group, Sony Corp. of America, Montvale, NJ, USA

Conference Title: Signal Processing of HDTV, III. Proceedings of the Fourth International Workshop on HDTV and Beyond p.501-11

Editor(s): Yasuda, H.; Chiaglione, L.

Publisher: Elsevier, Amsterdam, Netherlands

Publication Date: 1992 Country of Publication: Netherlands xx+661 pp.

ISBN: 0 444 89491 8

Conference Date: 4-6 Sept. 1991 Conference Location: Turin, Italy

Language: English Document Type: Conference Paper (PA)

Treatment: General, Review (G)

Abstract: The author sets the arguments in favour of progressive scanning against the physical and technological limitations of present-day real-time HDTV cameras, VTRs, optical disc players and telecine equipment. He stresses the practicality of interlace scanning for high spatial resolution, at the cost of some artifacts which are seldom regarded as significant by HDTV programme producers. Interlace is seen as a pragmatic compromise pending the emergence of satisfactory progressive scanning technology. (15 Refs)

16/7/20 (Item 2 from file: 2)

04262055 INSPEC Abstract Number: B9212-6420D-002

Title: Hardware experiments on progressive scan conversion of an IDTV receiver suitable for telecine image

Author(s): Kageyama, M.

Author Affiliation: Central Res. Lab., Hitachi Ltd., Tokyo, Japan

Journal: Journal of the Institute of Television Engineers of Japan
vol.46, no.5 p.632-8

Publication Date: May 1992 Country of Publication: Japan

CODEN: JITJA7 ISSN: 0386-6831

Language: Japanese Document Type: Journal Paper (JP)

Treatment: Experimental (X)

Abstract: Telecine images converted from film images have a lower frame rate than ordinary TV signals. This allows interlaced scan signals to be converted completely into progressive scan signals by the 'film-frame-closed' method. Transmitted fields are combined into a TV frame every two or three field sequences (i.e., every film-frame sequence). Hardware experiments including subjective assessments, are described. On average, the method improves picture quality between 1 and 1.5 ranks on the CCIR seven-grade scale, compared with the conventional motion adaptive method. Receivers can distinguish telecine images without the need for marker signals. However, when other images such as subtitles are superimposed, the method does not work well. Several solutions to this problem are proposed. (8 Refs)

16/7/21 (Item 3 from file: 2)

03237187 INSPEC Abstract Number: B88067580

Title: The shape of screens to come (TV)

Author(s): Strain, R.A.

Journal: SMPTE Journal vol.97, no.7 p.560-7

Publication Date: July 1988 Country of Publication: USA

CODEN: SMPJDF ISSN: 0036-1682

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: The advent of compatible high-definition television (HDTV) will require specially prepared software to accommodate various image formats because excessive cropping and anamorphic distortion are an inevitable result of displaying programs in formats different from their intended design. An analysis of problem areas in film and video which suffer from excessive cropping is provided and related to the development of HDTV. The solutions offered also pertain to the development of a consumer widescreen television system, fully compatible with NTSC, which can serve as a testbed for the wide format of HDTV. (0 Refs)

16/7/22 (Item 4 from file: 2)

02260750 INSPEC Abstract Number: A84063797, B84030775

Title: FDL 60-an advanced film scanning system

Author(s): Poetsch, D.

Author Affiliation: Robert Bosch GmbH, Darmstadt, West Germany

Journal: SMPTE Journal vol.93, no.3 p.216-27

Publication Date: March 1984 Country of Publication: USA

CODEN: SMPJDF ISSN: 0036-1682

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P)

Abstract: The presentation of the FDL 60 film scanner in Montreux in early 1979 was a milestone in the development of modern telecine technology. The FDL 60, which utilizes semiconductor CCD sensors to scan the film without interlace, and generates 60 fields/sec from 24 film frames via a digital frame store using component coding, is described. With the same basic unit and different options it is possible to perform many operations for both broadcast and post-production using maintenance-free

digital techniques. (0 Refs)

16/7/23 (Item 5 from file: 2)
01790917 INSPEC Abstract Number: B82006937
Title: Progress in film scanning
Author(s): Poetch, D.
Author Affiliation: R. Bosch GmbH, Stuttgart, West Germany
Journal: Australian Electronics Engineering vol.14, no.4 p.36, 40,
44, 47
Publication Date: April 1981 Country of Publication: Australia
CODEN: AUEEB5 ISSN: 0004-9042
Language: English Document Type: Journal Paper (JP)
Treatment: General, Review (G)
Abstract: Describes the FDL 60 telecine film scanner which employs a new kind of scanning principle. This telecine uses CCD line sensors, full frame scanning without line interlace, and digital full frame storage enabling the film transport to be continuous and providing fast rewind with full size colour pictures. Slow motion effects and fast search, together with easy operation and high picture quality provide the television medium with new production methods for colour film. The film editing, colour correction and transfer to video tape are made considerably simpler by the use of microcomputer control of all film deck functions together with the programmable film timer. (0 Refs)

16/7/24 (Item 6 from file: 2)
01695346 INSPEC Abstract Number: B81029892
Title: FDL 60-progress in film scanning using CCD sensors and digital processing
Author(s): Poetsch, D.; Stothart, P.
Author Affiliation: Robert Bosch GmbH, Stuttgart, West Germany
Journal: International Broadcast Engineer vol.12, no.175 p.46-9
Publication Date: Jan. 1981 Country of Publication: UK
CODEN: IBREBP ISSN: 0020-6229
Language: English Document Type: Journal Paper (JP)
Treatment: Applications (A)
Abstract: The FDL 60 telecine uses CCD line sensors, full frame scanning without line interlace, and digital full frame storage enabling the film transport to be continuous and providing fast rewind with full size colour pictures. (0 Refs)

16/7/25 (Item 7 from file: 2)
01447640 INSPEC Abstract Number: A80004786, B80006379
Title: Application of digital techniques to colour film scanning (television)
Author(s): Millward, J.D.
Journal: Fernseh- und Kino-Technik vol.33, no.6 p.207-9
Publication Date: June 1979 Country of Publication: West Germany
CODEN: FNKTAH ISSN: 0015-0142
Language: German Document Type: Journal Paper (JP)
Treatment: Applications (A); Practical (P)
Abstract: With a telecine with continuous run and continuous scanning via line sensors or a cathode beam flying spot, digital temporary storage of a half picture (or two half-pictures in the case of 525 lines) is required to attain signal sequence corresponding to the scanning interlace system common in television. Problems in the execution of such a principle are discussed and some solutions offered. (0 Refs)

16/7/26 (Item 8 from file: 2)
01439738 INSPEC Abstract Number: A80000278, B80001985, C80001206
Title: The FDL 60-a new telecine employing CCD line scanning and digital

frame store techniques

Author(s): Stothart, P.; Poetsch, D.

Journal: International Broadcast Engineer vol.10, no.165 p.36, 38

Publication Date: May 1979 Country of Publication: UK

CODEN: IBREBP ISSN: 0020-6229

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P)

Abstract: The FDL 60 telecine combines CCD line scanning with digital frame storage. It can handle all positive and negative 16 mm and 35 mm films with audio tracks. The line sensors enables the colour information to be accurately reproduced in the TV medium. Microcomputer control of the film deck and electronics ensures reliable functioning at the various playing speeds. (0 Refs)

16/7/27 (Item 9 from file: 2)

01437658 INSPEC Abstract Number: A80000282, B80002032

Title: Anamorphic super-8 wide-screen prints with stereophonic sound

Author(s): Webers, J.

Author Affiliation: Bavaria Kopierwerk GmbH, Geiseltasteig, West Germany

Journal: SMPTE Journal vol.88, no.9 p.595-9

Publication Date: Sept. 1979 Country of Publication: USA

CODEN: SMPJDF ISSN: 0036-1682

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Initially, a short overview of the use of stereophonic sound in wide-screen pictures is given. The basics of obtaining a stereophonic soundtrack and its use in conjunction with a wide-screen film are briefly discussed. The basic sequence of printing steps for obtaining a print with magnetic sound are outlined. Next, the manufacturing steps for obtaining deanamorphosed reduction prints from anamorphic originals are discussed in detail. The image scanning process necessary in this type of reduction printing, is analyzed, and an automatic scanning system for the optical reduction printer is described. A control tape for the automatic optical printer scanning is obtained by first scanning a work print of the original anamorphic film by means of a video camera tube. Methods are described for producing an anamorphic super-8 print from an anamorphic original. Finally, methods are discussed for applying high quality stereophonic soundtracks to anamorphic super-8 prints. (0 Refs)

16/7/28 (Item 10 from file: 2)

01432706 INSPEC Abstract Number: A80000281

Title: Small format anamorphic reduction printing; new-system 16 mm and super 8 anamorphic reduction prints from 35 mm style B originals

Author(s): Sips, W.G.; Van Tetering, A.M.A.H.

Author Affiliation: Animex Inc., Haarlem, Netherlands

Journal: SMPTE Journal vol.88, no.9 p.589-95

Publication Date: Sept. 1979 Country of Publication: USA

CODEN: SMPJDF ISSN: 0036-1682

Language: English Document Type: Journal Paper (JP)

Treatment: New Developments (N); Practical (P)

Abstract: A new patented system, called Cinevision in Europe and Animexvision in the US., applies lateral masking to the 35 mm Style A image area or that of 16 mm and super 8 mm, or masks the width of a video recording tube. This achieves a uniform anamorphic image area aspect ratio both for image recording and reproduction. The Cinevision aspect ratio of 1.18:1, originally standardized for the 35 mm Style B anamorphic image area, permits enlargements as well as reductions. A final advantage of a system of uniform aspect ratios for the original as well as the projectable anamorphic image area is that a standardized screen aspect ratio of 2.35:1 becomes possible for all film formats or for an-as yet hypothetical-TV

receiver tube of double width. (0 Refs)

16/7/29 (Item 11 from file: 2)
01316312 INSPEC Abstract Number: B79014293
Title: A new system for scanning film (telecine)
Author(s): Poetsch, D.
Journal: Fernseh- und Kino-Technik vol.32, no.9 p.349-54
Publication Date: Sept. 1978 Country of Publication: West Germany
CODEN: FNKTAH ISSN: 0015-0142
Language: German Document Type: Journal Paper (JP)
Treatment: Practical (P)
Abstract: Describes a new system for sequential line scanning without interlace which uses CCD line sensors and sequential-to-interlace conversion with a digital frame store. (24 Refs)

16/7/30 (Item 1 from file: 8)
03015182 E.I. Monthly No: EI9102018084
Title: Developments in the Rank Cintel Telecine.
Author: Swinson, Peter R.
Corporate Source: Rank Cintel Ltd
Source: Image Technology (London) v 71 n 9 Sep 1989 p 432-434
Publication Year: 1989
CODEN: IMATEV ISSN: 0950-2114
Language: English
Document Type: JA; (Journal Article) Treatment: A; (Applications)
Journal Announcement: 9102
Abstract: Film stocks have been continuously improved to such an extent that they are recognised as the highest quality materials onto which to place images. To complement advances in film technology various telecine principles have been developed for converting the film image into the best video image possible. Flying-spot telecines have provided the means to convert the film image into one of the highest quality video images available. Three new technologies can be considered as responsible for new generation Telecines, they are: advances in Cathode Ray Tube (CRT) Design, new methods of CRT scan control, and digital scan and digital video channel processing. The overall effect of combining new CRT, CRT scan and Digital Channel technology in the latest generation Flying-Spot telecines offer greater stability of video levels, considerable improvements in signal to noise ratios, virtually maintenance free operation and a significant increase in flexibility of operation. (Edited author abstract)

16/7/31 (Item 2 from file: 8)
01672017 E.I. Monthly No: EIM8408-059775
Title: DIGITAL SIGNAL PROCESSING FOR THE MARCONI LINE ARRAY TELECINE.
Author: Matchell, R.
Corporate Source: Marconi Communication Systems, UK
Conference Title: Symposium Record - 13th International TV Symposium. (Equipment Innovations Sessions.)
Conference Location: Montreux, Switz Conference Date: 1983 May 28-Jun 2
E.I. Conference No.: 04329
Source: p 487-496
Publication Year: 1983
Language: English
Document Type: PA; (Conference Paper)
Journal Announcement: 8408

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?ds s17-s24

Set	Items	Description
S17	424087	MEMOR?
S18	29410	FRAME? (W) (STORE? OR S17) OR VRAM? ? OR DRAM? ? OR RANDOM(2-W) S17
S19	43	S18 AND (S4 OR S6)
S20	4559	RASTER? (N) S2
S21	3	S19 AND S20
S22	13	S19 AND S13
S23	15	(S21 OR S22) NOT S15
S24	13	RD (unique items)
?		
?t 24/7/1-13		

24/7/1 (Item 1 from file: 351)
 009406945 WPI Acc No: 93-100455/12
 XRPX Acc No: N93-076460

Interleaving vertical pixels in raster based laser printer - involves energising two pixels above and below desired interleaved dot with energisation below threshold for dot production

Patent Assignee: (DPTE-) DP TEK INC
 Author (Inventor): FRAZIER A L; PIERSON J S
 Number of Patents: 001
 Number of Countries: 001
 Patent Family:

CC Number	Kind	Date	Week	
US 5193008	A	930309	9312	(Basic)

Priority Data (CC No Date): US 610094 (901107)

Abstract (Basic): US 5193008 A

Interleaved image dots are selectively provided between the normal scan lines of the laser printer. The interleaved image dots between scan lines may be achieved by appropriately energising the two pixels directly above and directly below that desired interleaved dot, with the energisations at one or both pixels being selectively below the threshold level for producing a dot on the scan line, but with the combined energisation at the desired interleaved point being above the threshold level to produce the desired interleaved dot.

An input 600 x 600 bit map may be stored in a random access memory, and three vertically aligned bits from one main scan line and adjacent 600 DPI lines above and below are drawn from the RAM and are supplied to a logic and video output circuit which produces variable pulse width modulated pulses to the laser printer.

ADVANTAGE - Produces enhanced image.

Dwg. 6/6

Derwent Class: T04;
 Int Pat Class: H04N-001/21

24/7/2 (Item 2 from file: 351)
 009191040 WPI Acc No: 92-318476/39
 XRPX Acc No: N92-243806

Raster scan system without flyback e.g. for TV receiver, or VDU - deflects beam horizontally and vertically across face of display tube using circuitry to provide required sawtooth current and stepped current waveforms

Patent Assignee: (PARD/) PARDOE B H; (UNSW/) UNSWORTH L
 Author (Inventor): PARDOE B H; UNSWORTH L
 Number of Patents: 001
 Number of Countries: 001
 Patent Family:

CC Number	Kind	Date	Week
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Priority Data (CC No Date): GB 9027226 (901215)

Abstract (Basic): GB 2253978 A

The raster scan system deflects a beam over a complete specified area without flyback, and includes a deflection system, e.g., currents for magnetic deflection or potential differences for electrostatic deflection. The appts. may have a device for producing an interlaced scan, a frame store and synchronising circuits for converting picture signal to given display format.

USE/ADVANTAGE - For visual display units, TV receivers, radar units. Also implementable in other scanning systems, e.g., TV cameras, electron microscopes. Eliminating flyback allows drive circuit solid-state parameters to be relaxed.

Dwg.2/2

Derwent Class: T04; W03;

Int Pat Class: H04N-003/30

24/7/3 (Item 3 from file: 351)

008825043 WPI Acc No: 91-329056/45

XRFX Acc No: N91-252020

Signal converter for HDTV on NTSC display - reads out video signal frame memory while controlling number of dots per line NoAbstract Dwg 1/15

Patent Assignee: (NIDE) NEC CORP

Author (Inventor): YOSHIKAWA W

Number of Patents: 002

Number of Countries: 002

Patent Family:

CC Number	Kind	Date	Week	
JP 3219786	A	910927	9145	(Basic)
US 5166801	A	921124	9250	

Priority Data (CC No Date): JP 89304289 (891122)

Applications (CC,No,Date): US 616431 (901121); JP 90315348 (901120)

Abstract (Basic): US 5166801 A

The large-sized display for a high-definition television (HDTV) includes conventional television displays. Pref. the large-sized display has twelve conventional display units arranged in three rows and four columns for displaying a video signal of an HDTV system which has 1125 scanning lines in a frame, 60 fields per second, an aspect ratio of 16 to 9, and which performs interlace scanning.

The large-sized display generates a clock having a frequency produced by multiplying the horizontal synchronising signal of the high-definition television system by n, (an integer), which is the sum of 2's integral power.

USE/ADVANTAGE - Multi-video display for video source of conventional TV system, electronic publishing, film production, high picture quality screen at low cost, conventional TV displays have improved luminance and stability than HDTV display. (First major country equivalent to JP3219786)

Dwg.5a/15

Derwent Class: W03; R57;

Int Pat Class: H04N-005/262; H04N-005/66; H04N-007/01

24/7/4 (Item 4 from file: 351)

008534512 WPI Acc No: 91-038575/06

XRFX Acc No: N91-029788

Picture-in-picture television receiver - inputs sub-picture as main or interpolated signal in correct phase relation

Patent Assignee: (MATU) MATSUSHITA ELEC IND KK; (MATU) MATSUSHITA ELEC
IND CO LTD

Author (Inventor): TSUII T; IMAI K; ISHIZU A

Number of Patents: 003

Number of Countries: 005

Patent Family:

CC Number	Kind	Date	Week	
EP 411662	A	910206	9106	(Basic)
JP 3066270	A	910320	9118	
US 5111297	A	920505	9221	

Priority Data (CC No Date): JP 89203267 (890804)

Applications (CC,No,Date): EP 90114978 (900803); US 560847 (900731)

Language: English

EP and/or WO Cited Patents: 1.Jnl.Ref; A3...9149; NoSR.Pub; US 4816915

Designated States

(Regional): DE; FR; GB

Abstract (Basic): EP 411662

A signal processing circuit includes a frame memory which inputs the video signal of the interface-scanned main picture and outputs, for non-interlaced scanning a main picture video signal for the interpolated scanning line. A second frame memory inputs the video signal of the interlaced scanning sub-picture and outputs, for non-interlaced scanning, a sub-picture video signal for the interpolated scanning line.

A two-input to one-output multiplexer switches, on the field basis, the sub-picture video signal for interlaced scanning and the output signal of the signal processing circuit including the second frame memory. Two memories connected to the output of the multiplexer store one frame.

ADVANTAGE - By keeping phase correct, line flicker is avoided.

@(18pp Dwg.No.4/12)@

Abstract (US): 9221 US 5111297 A

The receiver has a picture-in-picture (P-in-P) function which inserts a frame (sub-picture) into a part of another frame (main picture). The receiver is provided with a signal processing circuit for implementing the scanning line interpolation and a memory having a frame-wide capacity for producing a sub-picture.

The receiver (1) produces a video signal for the main scanning line and a video signal for the interpolated scanning line for the main picture and a video signal for the main scanning line and a video signal for the interpolated scanning line for the sub picture (2) and performs a double scanning conversion, thereby providing a sub-picture without causing line flicker.

USE - Performs scanning line interpolation by using a memory to reproduce a 1/60 second frame with 525 scanning lines.

Derwent Class: W03; R57;

Int Pat Class: H04N-005/26; H04N-005/44

24/7/5 (Item 5 from file: 351)

008122976 WPI Acc No: 90-009977/02

XRPX Acc No: N90-007641

Scan-converter system for producing non-interlaced image data - has appts. for forming image data by superimposing computer generated image on other image reproduced f

Patent Assignee: (SONY) SONY CORP

Author (Inventor): ICHIKAWA T; FUJIKAWA M; TAKESHIMA Y

Number of Patents: 005

Number of Countries: 005

Patent Family:

CC Number	Kind	Date	Week	
EP 350234	A	900110	9002	(Basic)
JP 2016881	A	900119	9009	
US 4935815	A	900619	9027	
EP 350234	B1	931110	9345	
DE 68910596	E	931216	9351	

Priority Data (CC No Date): JP 88165966 (880705)

Applications (CC,No,Date): DE 610596 (890703); EP 89306726 (890703); EP 89306726 (890703); US 372754 (890629); EP 89306726 (890703)

Language: English

EP and/or WO Cited Patents: A3...9010; DE 2617884; GB 2198609; No-SR.Pub

Designated States

(Regional): DE; FR; GB

Filing Details: DE68910596 Based on EP 350234

Abstract (Basic): EP 350234

The scanconverter system converts an interlaced video signal to a non-interlaced video signal and forms desired image data by superimposing a computer generated image on another image reproduced from a laser disc or the like. The system comprises a write clock generator of a predetermined frequency, a read clock generator of a double frequency, and a line memory unit (3). The latter stores a horizontal line of an interlaced digital video signal and outputs a first non-interlaced digital video signal. A frame memory unit (8) stores a frame of the interlaced digital video signal and outputs a second non-interlaced digital video signal.

A detector (10) senses whether the interlaced digital video signal represents a still picture or not, and a selector (9) chooses one of the two non-interlaced digital video signals according to the output of the detector. Selection of the first or second non-interlaced digital video signal depends on whether the interlaced digital video signal represents a still picture or not.

ADVANTAGE - Eliminates flicker of image on display and adverts visually unnatural impression. @(8pp Dwg.No.1/3)@

Abstract (US): 9027 US 4935815

The scan converter system comprises a write clock generator for generating a write clock of a predetermined frequency, a read clock generator for generating a read clock of a double frequency and a line memory unit for storing a horizontal line of an interlaced digital video signal and outputting a first non-interlaced digital video signal. A frame memory unit stores a frame of the interlaced digital video signal and outputs a second non-interlaced digital video signal.

A detector senses whether the interlaced digital video signal represents a still picture or not, and a selector selects one of the first and second non-interlaced digital video signals according to the output of the detector. Selection of the first or second non-interlaced digital video signal depends on whether the interlaced digital video signal represents a still picture or not.

@(8pp)@

Abstract (EP): 9345 EP 350234 B

A scan converter system with a superimposing apparatus for converting an interlaced video signal to a non-interlaced video signal, comprising: write clock generator means for generating a write clock having a predetermined frequency f ; read clock generator means for generating a read clock having a frequency $2f$; key signal generator means for generating a key signal (XPG); first selector means (4) for selecting, in response to said key signal, either an interlaced digital video signal or a computer generated image signal supplied

thereto; line memory means (3) for storing a horizontal line of said interlaced digital video signal and outputting a first non-interlaced digital video signal, said interlaced digital video signal being written in said line memory means (3) in accordance with said write clock and being read therefrom in accordance with said read clock; frame memory means (8) for storing an output signal of said first selector means and outputting a second non-interlaced digital video signal, said output signal of said first selector means (4) being written in said frame memory means (8) in accordance with said write clock and being read therefrom in accordance with said read clock; detector means (10) for detecting whether said interlaced digital video signal represents a still picture or not; and second selector means (9) for selecting one of said first and second non-interlaced digital video signals according to the output of said detector means (10), in such a manner as to select said first non-interlaced digital video signal when the output of said detector means (10) indicates that said interlaced digital video signal represents a still picture, and to select said second non-interlaced digital video signal when the output of said detector means (10) indicates that said interlaced digital video signal does not represent a still picture.

Dwg.1/3c

Derwent Class: W03; W04; R57;

Int Pat Class: H04N-007/01; H04N-005/27; H04N-009/74; H04N-011/20

24/7/6 (Item 6 from file: 351)

004679673 WPI Acc No: 86-183015/28

XRPX Acc No: N86-136589

Real-time TV image processing appts. spatially filters one dimension of scanned two dimensional image orthogonal to raster scan lines

Patent Assignee: (RADC) RCA CORP; (GENE) GENERAL ELECTRIC CO

Author (Inventor): ARBEITER J H; BESSLER R F

Number of Patents: 007

Patent Family:

CC Number	Kind	Date	Week	
WO 8603921	A	860703	8628	(Basic)
US 4603350	A	860729	8633	
EP 205554	A	861230	8652	
JP 61502859	W	861204	8703	
CA 1236914	A	880517	8824	
EP 205554	B	900912	9037	
DE 3579693	G	901018	9043	

Priority Data (CC No Date): US 685239 (841221)

Applications (CC,No,Date): WO 85US2373 (851129); EP 85900412 (851129); JP 86500082 (860000)

Language: English

EP and/or WO Cited Patents: US 4447886; GB 2097219; 2.Jnl.REF; SS R870616; 1.Jnl.REF

Designated States

(National): JP

(Regional): DE; FR; GB; IT; NL

Filing Details: EP0205554 Based on WO8603921 (1157RP); JP61502859 Filed 29.11.85 Based on WO8603921 (18pp)

Abstract (Basic): WO 8603921

An input signal consists of successively occurring scan lines of pixel samples of frame(s) composed of F separate line-interlaced scanning fields of a raster-scanner two dimensioned image (F is an integer). The system has a one dimensioned m-tap digital filter/decimator and/or expander interpolation filter (M is a second

progressive-scan video output digital signal of successively-occurring scan-lines of pixel samples. Each tap has a predetermined multiplier coefficient. The filter has D delay devices, where D is less than (M-1), each capable of storing one scan-line of pixel samples; and F partial filters each with a separate subset of multiplier coefficients associated with it, the maximum number being no more than (D+1). Each partial filter consists of subset(s) of the delay devices, with delay device(s) of the set being common to all the partial filters.

An interlace to progressive-scan converter has a frame memory and a summer coupled to the partial filters in accordance with the ordinal-value of the line interlaced scanning fields. It is operative during the successive occurrence of each field of the frame of the input signal to sum corresponding pixel samples derived from the outputs of the partial filters.

USE/ADVANTAGE - With TV images. The system has reduced storage capacity compared to prior art types. It is particularly useful with Burt Pyramid image processing systems. @ (65pp Dwg.No.5/12)@

Abstract (US): 8633 US 4603350

The apparatus is comprised of one-dimensional m-tap digital filter/decimators and/or expander-interpolation filters used in a system for digitally processing, in real time, an applied interlaced video-input digital signal. The video-input signal is temporarily comprised of successively-occurring scan-lines of pixel samples of at least one frame composed of F separate line-interlaced scanning fields of a raster-scanned two-dimensional image, where F is a first plural integer.

The number of taps m of such a digital filter-decimator and/or expander-interpolation filter is larger than F. Further, the filter-decimator and/or expander-interpolation filter is operative in that one of the two dimensions of the image that is orthogonal to the raster scan lines for deriving a video output digital signal comprised of successively-occurring scan-lines of pixel samples. Associated with each of the m taps is a predetermined multiplier coefficient. @ (27pp)@

Abstract (EP): 9037 EP 205554

In a system for digitally processing in real time an applied interlaced video-input digital signal, wherein said video-input signal is temporally comprised of successively-occurring scan-lines of pixel samples of at least one frame composed of F separate line-interlaced scanning fields of a raster-scanned two-dimensional image, where F is a first plural integer; wherein said system includes filter apparatus comprised of a one-dimensional m-tap digital filter/decimator and/or expander/ interpolation filter, where m is a second plural integer that is larger than said first plural integer F, said filter apparatus being operative in that one of the two dimensions of said image that is orthogonal to said raster scan lines for deriving a progressive-scan video output digital signal comprised of successively-occurring scan-lines of pixel samples; and wherein each of said m taps has a predetermined multiplier coefficient associated therewith; the improvement wherein said filter apparatus comprises: a set of D delay means (700, 702, 704) where D is a predetermined integer having a value such that D below (m-1) each of which delay means is capable of storing one scan-line of pixel samples; a plurality of F partial filters (700-720) and (702-706, 710-720) each of which is operative for a respective ordinal one of said F fields and has a separate and distinct subset of said m predetermined multiplier coefficients individually associated therewith, the maximum number of said coefficients contained in any of said subsets being no greater than (D+1); each of said plurality of F partial filters being comprised of at least a subset of said D delay means (700-704) and (702-704), with one or more (702-704) of said delay means of said set being common to

all of said plurality of F partial filters, and an interlace to progressive-scan converter comprises of a progressive-scan frame memory (1010) and means including a summer (1008, 1012) that are coupled to said plurality of F

Derwent Class: T01; U22; W04; R57; R54; R18

Int Pat Class: H04N-007/01; G01R-023/16; H03H-017/02

24/7/7 (Item 7 from file: 351)

004397687 WPI Acc No: 85-224565/37

XRPX Acc No: N85-168686

Mixed alphanumeric and graphic raster-scan CRT display has combined coded alphanumeric and all-points-addressable graphics buffers

Patent Assignee: (IBM) IBM CORP

Author (Inventor): BEAVEN P A; CANTON D A; SARGEANT N B; SNAGGE T H

Number of Patents: 002

Patent Family:

CC Number	Kind	Date	Week	
EP 154067	A	850911	8537	(Basic)
US 4686521	A	870811	8734	

Priority Data (CC No Date): EP 84301497 (840307)

Applications (CC,No,Date): US 708755 (850306)

Language: English

EP and/or WO Cited Patents: WO 8302509; EP 96627; EP 108516; GB 2105156;

1.Jnl.REF

Designated States

(Regional): DE; FR; GB; IT

Abstract (Basic): EP 154067

The appts. includes a refresh buffer constituted by a coded character buffer (25) from which refresh logic causes successive character code bytes to address a character generator (49), and a graphics buffer (27) contg. red, blue and green pixel information in separate planes (27-R, 27-B, 27-G). Successive pixel bytes are conveyed via serialisers (33) to a mixer (37).

The character generator (49) is pref. a random-access memory from which different bit patterns can be unloaded by an address line (57) separate from the slice counter line (53).

ADVANTAGE - Full use of all points-addressable buffer for graphics is allowed. Performance degradation from character updating is avoided by use of coded buffer where comparatively few bits control mixing of images. Character font can be changed without rewriting of character buffer or generator. @(19pp Dwg.No.2/11)@

Abstract (US): 8734 US 4686521

The appts. uses a raster scanned CRT and a refresher buffer with a coded alphanumeric buffer, and displays alphanumeric characters. An all-points addressable (APA) buffer displays graphics. Serialised data from the two buffers are mixed under control of at least one control bit (attribute) stored in the coded buffer to provide a composite pel-representing bit stream supplied to the CRT.

Each coded representation is stored in the coded buffer as a character code byte and a colour attribute byte contg. bits representing the colours of the foreground and background of that character and at least one control bit. Several serialisers receive graphic and character data byte and supply graphics and character data to the mixer bit by bit.

ADVANTAGE - Alphanumeric and graphic images can be mixed on character basis. @(11pp)@

Derwent Class: T04; T01; P85;

Int Pat Class: G09G-001/28

24/7/8 (Item 1 from file: 2)

04309602 INSPEC Abstract Number: B9302-6430C-006

Title: Source-adaptive encoding options for HDTV and NTSC

Author(s): Parulski, K.A.; Hunt, C.B.; DeMarsh, L.E.

Author Affiliation: Eastman Kodak Co., Rochester, NY, USA

Journal: SMPTE Journal vol.101, no.10 p.674-83

Publication Date: Oct. 1992 Country of Publication: USA

CODEN: SMPJDF ISSN: 0036-1682

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P)

Abstract: Television images originate from many sources, including video cameras, motion-picture film, and digital still graphics. The article describes how future all-digital high-definition television (HDTV) transmission systems and NTSC receivers can be designed to adapt to the frame rate, aspect ratio, color mode, and resolution of the signal source in a simple and cost-effective manner. This can provide improved picture quality or reduced transmission bandwidth requirements for image segments from certain sources. In HDTV transmission systems, the transmission coder operates at the source frame rate, for example, 24 frames/sec for film sources. The receiver frame store performs frame-rate conversion for the display. In high-end receivers, this processing can reuse the motion vectors transmitted by the HDTV coder. In NTSC receivers incorporating field stores and progressive scan displays, source-adaptive processing allows perfect interlace to progressive scan conversion and luminance/chrominance decoding for still images, and improved decoding of images from motion-picture film. To make these methods more efficient, 'origination-source ID' data is incorporated into the video signal during post-production. (23 Refs)

24/7/9 (Item 2 from file: 2)

03763831 INSPEC Abstract Number: B90078202

Title: Motion compensated deinterlacing of video sequences

Author(s): Wang, F.-M.; Anastassiou, D.; Netravali, A.N.

Author Affiliation: Columbia Univ., New York, NY, USA

Conference Title: Sixth Multidimensional Signal Processing Workshop (Cat. No.89TH0290-7) p.234

Publisher: IEEE, New York, NY, USA

Publication Date: 1989 Country of Publication: USA 242 pp.

Conference Sponsor: IEEE

Conference Date: 6-8 Sept. 1989 Conference Location: Pacific Grove, CA, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: Summary form only given. Interlaced scanning is an effective method of bandwidth compression that was appropriate in the old days when television frame memories were expensive. However, in addition to the loss of vertical resolution, interlacing results in many well-known artifacts (e.g. interline flicker, line crawl). Some novel techniques for reducing the artifacts associated with interlacing, and for effectively increasing the vertical resolution by motion-compensated interpolation are reported. Unlike motion-compensated coding, where inaccurate motion estimates only increase the bit rate slightly, and since motion-compensated interpolation has to be done entirely at the receiver, a hybrid pel recursive block matching technique is used for motion estimation, and additional postprocessing is used to remove any artifacts. (0 Refs)

24/7/10 (Item 3 from file: 2)

02834571 INSPEC Abstract Number: B87020997

Title: Contrast enhancement of ESPI vibration patterns by speckle averaging in a video frame store

Author(s): Montgomery, P.C.; Bergquist, B.D.

Author Affiliation: Dept. of Mech. Eng., Loughborough Univ. of Technol.,
UK

Journal: Proceedings of the SPIE - The International Society for Optical
Engineering vol.599 p.201-6

Publication Date: 1986 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X

Conference Title: Optics in Engineering Measurement

Conference Sponsor: SPIE

Conference Date: 3-6 Dec. 1985 Conference Location: Cannes, France

Language: English Document Type: Conference Paper (PA); Journal Paper
(JP)

Treatment: Experimental (X)

Abstract: The analysis of vibration modes of engineering components is an important aspect of industrial testing. Holographic interferometry is one technique for studying whole areas of an object at the same time. Electronic speckle pattern interferometry (ESPI) uses a TV video system to perform a similar function by means of the speckle effect from an object that is illuminated with coherent laser light. While useful for converting light intensities into phase information relating to movement of the surface, speckles represent unwanted video noise in the final interferogram on the monitor screen. A technique is presented for reducing the speckle noise by sequentially averaging a large number of interferograms with de-correlated speckle patterns in a video frame store. A silicon-target storage tube or a digital frame store is used to produce high contrast ESPI fringes. This simplifies analysis by eye from the screen or by computer from the digital frame store. The combination of real time frequency scanning and contrast enhancement at a chosen frequency in only a few seconds makes ESPI a useful industrial test instrument. (8 Refs)

24/7/11 (Item 4 from file: 2)

00663817 INSPEC Abstract Number: C74018059

Title: Digital frame storage for television video

Author(s): Pursell, S.G.; Newby, H.

Author Affiliation: CBS Labs., Stamford, CT, USA

Journal: Journal of the Society of Motion Picture and Television
Engineers vol.83, no.4 p.300-2

Publication Date: April 1974 Country of Publication: USA

CODEN: JSMTA4 ISSN: 0361-4573

Language: English Document Type: Journal Paper (JP)

Abstract: Storage of a full frame of quantized television video using an all-digital memory has now become practical, due to the steady increase over the past few years of the data-rate capabilities of MOS shift register devices (now 5-8 MHz) accompanied by decreasing costs (now less than 0.4 cents per bit). The primary advantages of a digital frame store with real-time input/output capability are flexible data rate (as opposed to the fixed rate of a video disc) and long-term stability (as opposed to storage tubes). The recently-built system described in this paper utilizes digital frame storage to provide a flexible interface between standard television video, an Electron Beam Recorder using non-interlaced scanning, and a computer with a relatively slow input and output rate. (7 Refs)

24/7/12 (Item 1 from file: 8)

02766959 E.I. Monthly No: EI8908070308

Title: Video processor unit.

Author: Oinuma, Akira; Sakami, Hiroyuki; Shimeki, Yasuharu; Tatsumi,
Toshikazu; Koda, Toshiyuki; Kajimoto, Kazuo; Ota, Yukio

Corporate Source: Matsushita Electric Industrial Co, Moriguchi, Jpn

Source: National Technical Report (Matsushita Electric Industry Company)

v 35 n 1 Feb 1989 p 26-34

Publication Year: 1989

CODEN: NTROAV ISSN: 0028-0291

Language: Japanese

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 8908

Abstract: A video processor unit has been developed as one of the peripheral devices for the Panacom M series personal computers. It acts as an interface between the personal computer and various kinds of AV equipment such as a VTR. Through A/D conversion, NTSC video signals are stored as digital data in the frame memory with capacity of more than 1 MB. In reading out the data of the frame memory, the video processor carries out scan conversion and various image processing functions, such as enlargement and reduction of the video image size and superimposing of video images, by controlling the read out address by means of the host computer. As a result, NTSC video motion images can be displayed on the computer screen with non-interlaced scanning. Therefore, graphic images can be superimposed with the video images with minimum degradation of the image quality. (Author abstract) 2 Refs. In Japanese.

24/7/13 (Item 1 from file: 275)

11599472 DATABASE: CD FILE 275 *Use Format 9 for FULL TEXT*

TITLE: Take the processor and run - fast. (33-MHz 80486-based microcomputer prices are dropping on mail-order systems) (includes related articles on buses, upgrading, math processing, and FCC ratings) (Cover Story)

AUTHOR: Hill, Alice; Mace, Thomas

JOURNAL: PC Sources VOL.: v2 ISSUE: n12 PAGINATION: p397(6)

PUBLICATION DATE: Dec, 1991

ARTICLE TYPE: Cover Story

AVAILABILITY: FULL TEXT Online LINE COUNT: 00450

SOURCE FILE: CD File 275

ABSTRACT: Microcomputer systems based on Intel Corp's 33-MHz 80486 microprocessor are dropping rapidly in price through mail-order vendors. Systems configured around the 486 chip give the user a better value with less chance of rapid obsolescence than 33-MHz 80386-based systems and for only about \$300 to \$700 more. The 486 chip is more integrated than the 386 chip, with floating point calculations performed on the microprocessor in the math chip and an on-chip 8Kbyte cache. The design increases performance 30 percent over the older chip. Users will want to take full advantage of this by purchasing systems with at least a 64Kbyte system cache, a 200Mbyte hard drive and a video card with 1Mbyte of VRAM and a non-interlaced monitor with the highest scanning frequency possible. Expandability is also important and users must consider how large a case they can fit into the space where the system will be sitting.

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?ds s1

Set	Items	Description
S1	817	TELECINE? ?

?ds s5

Set	Items	Description
S5	551031	WEIGHT?

?ds s25

Set	Items	Description
S25	2	S1 AND S5

?

?t 25/7/1-2

25/7/1 (Item 1 from file: 351)
008352223 WPI Acc No: 90-239224/31
XRPX Acc No: N90-185511

Loss and defect compensation for telecine devices - using high resolution correction map to produce correction factors for video data

Patent Assignee: (RANK) RANK CINTEL LTD

Author (Inventor): HUNT S; MEAD T W; OSBORNE T M; OSBOURNE T M

Number of Patents: 011

Number of Countries: 013

Patent Family:

CC Number	Kind	Date	Week	
WO 9007842	A	900712	9031	(Basic)
GB 2229885	A	901003	9040	
EP 449875	A	911009	9141	
JP 4506133	W	921022	9249	
EP 529743	A1	930303	9309	
EP 532129	A1	930317	9311	
EP 449875	B1	930609	9323	
EP 449875	B1	930609	9323	
WO 9007842	A3	900907	9327	
DE 68907064	E	930715	9329	
GB 2229885	B	930728	9330	

Priority Data (CC No Date): GB 8830205 (881223); GB 8913924 (890616)

Applications (CC,No,Date): GB 8929016 (891222); GB 89290167 (891222); EP 90900303 (891222); WO 89GB1539 (891222); JP 90501135 (891222); EP 92203151 (891222); EP 92203150 (891222); WO 89GB1539 (891222); EP 90900303 (891222); WO 89GB1539 (891222); DE 607064 (891222); WO 89GB1539 (891222); EP 90900303 (891222)

Language: English

EP and/or WO Cited Patents: NoSR.Pub; 03Jnl.Ref; EP 264726; GB 2115640; GB 771454; GB 771509; JP 57065057; JP 61129978; US 3663750; US 3902011; US 3919473; US 4218771; US 4227215; US 4314281; US 4343021; US 4570181; US 4772941; US 4780755; US 821468; GB 2113950; US 3821468; US 4218711; US 4434503; 2.Jnl.Ref; JP 62031119; US 771509; 10Jnl.Ref

Designated States

(National): JP; US

(Regional): AT; BE; CH; DE; ES; FR; GB; IT; LU; NL; SE

Filing Details: JP04506133 Based on WO 9007842; EP0529743 Related to EP 449875; EP0532129 Related to EP 449875; EP0449875 Based on WO 9007842; EP0449875 Based on WO 9007842; DE68907064 Based on EP 449875; DE68907064 Based on WO 9007842

Abstract (Basic): WO 9007842 A

A system for compensation of losses and defects in flying spot telecine apparatus and film writers. The method divides the scanning area a correction map and devises for each area a correction factor based on the response of that area to incident illumination. Where a defect is detected, video data from an adjacent area is substituted. Correction factors are held in a look-up RAM (50) and output to a multiplier (53) where they are multiplied with video data.

The video data input to the multiplier (53) may be suppressed and a test pattern may be loaded into the multiplier. Burn at the ends of video lines may be reduced by reducing the intensity and/or dwell time of the scanning spot on any one area of the screen in the vicinity of the line end.

ADVANTAGE - To reduce losses caused by difference in response to light of different areas of screen area scanned. Especially to reduce blemish, dirt and shading burn. @(71pp Dwg.No.9/24)@

Abstract (GB): 9330 GB 2229885 B

A method of inserting a test pattern into a video path comprising providing test pattern data, providing a store for weighting factors to be applied to a video signal to compensate for errors and defects in the system producing the video signal, providing means for multiplying the weighting factors with the video data, loading the test pattern data into the store and forcing the video data input of the multiplying means to unity to provide the test pattern data as an output from the multiplier.

Dwg.1/1

Abstract (EP): 9323 EP 449875 B

A method of weighting a video signal to compensate for defects and losses in the scanning apparatus producing the signal, comprising dividing the scanning area into a correction map having a plurality of uniquely addressable pixels, deriving for each pixel a correction factor indicative of losses and defects associated with that pixel, storing in a store the derived correction factors and applying the correction factors to a video signal during operation of the scanning apparatus to produce a compensated signal, characterised in that the correction map is derived from a digital scanning map and is addressable by the scan coordinates of the scanning map and wherein the orientation of the scanning and correction maps with respect to one another is variable and the correction factor applied to a given scanning map pixel is derived from the correction map pixel which encloses the centre of that scanning map pixel.

Dwg.1/24

Derwent Class: S06; W04;

Int Pat Class: H04N-001/38; H04N-003/20; H04N-003/36; H04N-005/25;
H04N-005/253; H04N-005/257; H04N-005/265; H04N-017/00

25/7/2 (Item 2 from file: 351)

007713732 WPI Acc No: 88-347664/49

Related WPI Accession(s): 89-349812

XRPX Acc No: N88-263466

Two-channel wide-aspect-ratio HDTV transmission system - multiplexes two augmentation panel components per line of video with audio signals occupying consistent time slots; TELECINE CAMERA

Patent Assignee: (PHIG) PHILIPS GLOEILAMPEN NV

Author (Inventor): BASILE C; CAVALLERAN A P; TSINBERG M

Number of Patents: 002

Patent Family:

CC Number	Kind	Date	Week
EP 293986	A	881207	8849 (Basic)
JP 63316583	A	881223	8906

Priority Data (CC No Date): US 57847 (870602); US 199962 (880527)

Applications (CC,No,Date): EP 88201079 (880531); JP 88130470 (880530)

Language: English

EP and/or WO Cited Patents: EP 113934; US 4613903; US 4605950; WO 8603923

Designated States

(Regional): DE; FR; GB

Abstract (Basic): EP 293986

Decoded left and right augmentation panel signals (P'L,P'R) enable a programmable read-only memory (60) to provide proper multipliers (62) for generating the respective components including overlap and cosine roll-off, using addresses read out of a system clock pulse counter (50), for multiplying (64) the luminance signal (Y). Similarly the decoded central panel signal (C') enables a second PROM (66) storing the relevant addresses for the central panel (C).

An identical process is applied to the chrominance signals. The two augmentation panels are transmitted without intermission, weighted transition augmentation samples effecting a transition to the first

redundant pixel of the second component.

USE/ADVANTAGE - HDTV. Transmitted panels can be recombined without visible stitching and enables two augmentation panel components to be transmitted in quick succession. @(17pp Dwg.No.6/11)@

Derwent Class: W02; W03; R57;

Int Pat Class: H04N-007/00; H04N-011/00

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Set	Items	Description
S1	817	TELECINE? ?
S2	487918	SCAN?
S3	1074018	COMBIN? OR INTERLAC? OR INTER(W) (LACE? OR LACING)
S4	4408	S2(3N)S3
S5	551031	WEIGHT?
S6	504	S2(3N)S5
S7	23	S1 AND S4
S8	0	S1 AND S6
S9	17	ANAMORPH?(1N)FILM?
S10	998819	FILM?
S11	1339	ANAMORPH?
S12	72	S10(S)S11
S13	200136	VIDEO?
S14	13	S12 AND S13
S15	36	S7 OR S14
S16	31	RD (unique items)
S17	424087	MEMOR?
S18	29410	FRAME?(W) (STORE? OR S17) OR VRAM? ? OR DRAM? ? OR RANDOM(2- W)S17
S19	43	S18 AND (S4 OR S6)
S20	4559	RASTER?(N)S2
S21	3	S19 AND S20
S22	13	S19 AND S13
S23	15	(S21 OR S22) NOT S15
S24	13	RD (unique items)
S25	2	S1 AND S5
?		